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SP01-317

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor: QI, GANG, et al.

Serial No: 10/015,128

Filing Date: 12/11/2001

Title: DISPERSION AND  
DISPERSION SLOPE  
COMPENSATING FIBER AND  
OPTICAL TRANSMISSION

Group Art Unit: 2874

Examiner: Sarah Song

RESPONSE

Commissioner for Patents  
Alexandria, VA 22313-1450#4/R  
martha  
5/14/03  
RECEIVED  
MAY 13 2003  
TECHNOLOGY CENTER 2800RESPONSE TO EXAMINER'S 1<sup>st</sup> OFFICE ACTION

In reply to the Office Action dated February 13, 2003, designated as Paper No. 5 in the above-captioned application, please enter the following Amendments and Remarks as follows:

In the Claims

(Amended) 1. A dispersion and dispersion slope compensating optical fiber, comprising:

a segmented core and a cladding layer on the periphery of the core wherein the segmented core and the cladding layer exhibit a fiber refractive index profile that is selected to provide a dispersion of less than about -50 ps/nm-km at a wavelength of about 1580 nm having a maximum deviation of less than about 7 ps/nm-km within a wavelength band of from about 1550 nm to about 1610 nm the fiber refractive index profile has

a central core segment having a relative refractive index;

a depressed moat segment on a periphery of the central core segment and having a relative refractive index that is less than the relative refractive index of the central core segment, and an outer radius;

an intermediate segment on an outer periphery of the depressed moat segment and having a relative refractive index that is less than the relative refractive index of the central core segment and greater than the relative refractive index of the depressed moat segment, and an outer radius; and